

CLAIMS

1. An integrated circuit arrangement (200) comprising:
a plurality of integrated circuit modules (220a, 220b);
5 a first power line (202);
a second power line (204);
a reference power line (206);
an integrated circuit module (220a) from the plurality of circuit
modules (220a, 220b) comprising:
10 an internal power line (222a); and
a circuit module portion coupled between the first power line
(202) and the internal power line (222a);
the integrated circuit arrangement (200) further comprising a
voltage generator (240a; 342a, 344a) coupled between the first power line
15 (202) and the second power line (204), the voltage generator (240a; 342a,
344a) having a control terminal coupled to the reference power line (206) and
an output coupled to the internal power line (222a).
2. An integrated circuit arrangement (200) as claimed in claim 1,
20 wherein the integrated circuit module (222a) from the plurality of integrated
circuit modules (222a, 222b) further comprises a second circuit module portion
coupled between the first power line (202) and the second power line (204).
3. An integrated circuit arrangement (200) as claimed in claim 1,
25 wherein the voltage generator comprises an operational amplifier (240a) having
a non-inverting input comprising the control terminal and an inverting input
coupled to the internal power line (222a).
4. An integrated circuit arrangement (200) as claimed in claim 1,
30 wherein the voltage generator comprises:
a current source (342a) coupled between the first power line
(202) and the internal power line (222a); and

a transistor (344a) coupled between the internal power line (222a) and the second power line (204), the transistor having a gate comprising the control terminal.

- 5 5. An integrated circuit (400), comprising:
 a first power line connector (402);
 a second power line connector (404);
 a reference power line connector (406);
 an internal power line (422);
10 a circuit portion (420) coupled between the first power line
connector (402) and the internal power line (422); and
 a voltage generator (440) coupled between the first power line
connector (402) and the second power line connector (404), the voltage
generator having a control terminal coupled to the reference power line
15 connector (406) and an output coupled to the internal power line (422).
6. A matrix array device (500) comprising:
 a first set of conductors (520a-d);
 a second set of conductors (540a-d), the conductors from the
20 second set of conductors (540a-d) being substantially perpendicularly oriented
to the conductors from the first set of conductors (520a-d);
 a plurality of matrix elements (560), each matrix element (560)
from the plurality of matrix elements being coupled between a conductor from
the first set of conductors (520a-d) and a conductor from the second set of
25 conductors (540a-d); and
 a first integrated circuit arrangement (200) comprising:
 a plurality of integrated circuit modules (220a-d);
 a first power line;
 a second power line;
30 a reference power line;
 an integrated circuit module from the plurality of circuit modules
(220a-d) comprising:

an internal power line; and

a circuit module portion coupled between the first power line and the internal power line, the circuit portion having an output coupled to a conductor from the first set of conductors (520a-d);

5 the first integrated circuit arrangement further comprising a voltage generator coupled between the first power line and the second power line, the voltage generator having a control terminal coupled to the reference power line and an output coupled to the internal power line.

10 7. A matrix array device (600) as claimed in claim 6, further comprising a second integrated circuit arrangement (1200), the second integrated circuit arrangement (1200) comprising:

a plurality of integrated circuit modules (1200a-d);

a first power line;

15 a second power line;

a reference power line;

an integrated circuit module from the plurality of circuit modules (1200a-d) comprising:

an internal power line; and

20 a circuit portion coupled between the first power line and the internal power line, the circuit portion having an output coupled to a conductor from the second set of conductors (540a-d);

the second integrated circuit arrangement (1200) further comprising a voltage generator coupled between the first power line and the second power line, the voltage generator having a control terminal coupled to the reference power line and an output coupled to the internal power line.

8. A matrix array device (500) as claimed in claim 6, wherein the matrix array device (500) is a display device.

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9. An electronic device (600) comprising the integrated circuit arrangement (200) of claim 1 and having power supply means (620, 622)

coupled to the first power line (202), the second power line (204) and the reference power line (206) of the integrated circuit arrangement (200).

10. An electronic device (600) as claimed in claim 9, the electronic
5 device (600) further comprising a matrix array device (640), the matrix array
device comprising:

 a first set of conductors;

 a second set of conductors, the conductors from the second set
of conductors being substantially perpendicularly oriented to the conductors
10 from the first set of conductors,

 a plurality of matrix elements, each matrix element from the
plurality of matrix elements being coupled between a conductor from the first
set of conductors and a conductor from the second set of conductors, at least
one of the conductors from the first set of conductors or the second set of
15 conductors being coupled to an integrated circuit module from the plurality of
integrated circuit modules.